

IN THE CLAIMS

Claims 1-3, 5-13, 23, and 25-27 are currently pending and stand rejected in the current office action. Claims 15-22 have been previously withdrawn from consideration. Claims 1 and 23 are amended herein. No claims are added or cancelled by this response. A full listing of the claims is provided for the examiner's convenience.

Listing of Claims

1. (Currently Amended) A package, comprising:

a substrate with an inner surface to which a die is to be attached, forming electrical connections through the substrate, between the die and the exterior of the package;

a lid with an inner surface facing the inner surface of the substrate;

thermal attach disposed between the die and the inner surface of the lid; and

a layer of sealant disposed between and contacting the substrate and the lid to bond the lid to the substrate, wherein the sealant is disposed in a pattern with at least one break in the pattern, with the at least one break in the pattern remaining subsequent to the substrate and lid being assembled together.

2. (Previously Presented) The package of claim 1, wherein the package is a ball grid array package.

3. (Previously Presented) The package of claim 1, wherein the package is a pin grid array package.

4. (Cancelled)

5. (Previously Presented) The package of claim 1, wherein a vent-hole is formed through the lid.
6. (Previously Presented) The package of claim 1, wherein the pattern in which the sealant is disposed between the lid and the substrate is a substantially rectangular pattern with at least one break.
7. (Previously Presented) The package of claim 6, wherein the rectangular pattern has four breaks, one in each side of the substantially rectangular pattern.
8. (Previously Presented) The package of claim 7, wherein the four breaks comprise a minimum of 10% of the total length of what would otherwise be an unbroken substantially rectangular pattern.
9. (Previously Presented) The package of claim 6, wherein the rectangular pattern has four breaks, one in each corner of the substantially rectangular pattern.
10. (Previously Presented) The package of claim 9, wherein the four breaks comprise a minimum of 10% of the total length of what would otherwise be an unbroken substantially rectangular pattern.
11. (Previously Presented) The package of claim 1, wherein the substrate is susceptible to absorbing moisture, and the pressure existing between the substrate and the lid is as a result of moisture being released within the package by the substrate and being converted to steam.

12. (Previously Presented) The package of claim 11, wherein the substrate is comprised of organic material.

13. (Original) The package of claim 1, wherein the die is attached to the substrate using a controlled collapsed chip connection.

14. (Cancelled)

15. (Withdrawn) A method of releasing pressure existing within a package, comprising:

attaching a die to an inner surface of a substrate to form electrical contacts between the die and the substrate;

disposing sealant about the inner surface of the substrate in a pattern having at least one break in what would otherwise be a pattern forming an unbroken line surrounding the die; and

coupling a lid to the substrate, with an inner surface of the lid facing the inner surface of the substrate, using the sealant disposed about the inner surface of the substrate to bond the lid to the substrate.

16. (Withdrawn) The method of claim 15, further comprising disposing thermal attach between the die and the inner surface of the lid to use the lid to conduct heat away from the die.

17. (Withdrawn) The method of claim 15, further comprising modifying apparatus used to dispose the sealant in a pattern forming an unbroken line to dispose the sealant in the pattern having the at least one break in what would otherwise be a pattern forming an unbroken line.

18. (Withdrawn) The method of claim 15, further comprising installing the package for testing in a manner that a vent-hole formed through the lid is blocked, thereby preventing the pressure existing within the package from being released through the vent-hole.

19. (Withdrawn) The apparatus of claim 18, wherein the testing comprises applying heat to the exterior of the package by way of exposing the package to steam at high pressure.

20. (Withdrawn) The method of claim 15, wherein the substrate is susceptible to absorbing moisture, and the pressure existing between the substrate and the lid is as a result of moisture being released within the package by the substrate and being converted to steam.

21. (Withdrawn) The method of claim 15, further comprising installing the package for normal use in a manner that a vent-hole formed through the lid is blocked, thereby preventing the pressure existing within the package from being released through the vent-hole.

22. (Withdrawn) The method of claim 15, wherein the die is attached to the substrate using a controlled collapsed chip connection.

23. (Currently Amended) An apparatus, comprising:

 a substrate with an inner surface;

 a lid with an inner surface facing the inner surface of the substrate;

a die on which electronic circuitry is disposed, enclosed between the substrate and the lid, and attached to the inner surface of the substrate which provides electrical connections between the die and the exterior of the package;

thermal attach disposed between the die and inner surface of the lid; and

a layer of sealant disposed between and contacting the substrate and the lid to bond the lid to the substrate, wherein the sealant is disposed in a pattern with at least one break in the pattern, with the at least one break in the pattern remaining subsequent to the substrate and lid being assembled together.

24. (Cancelled)

25. (Previously Presented) The apparatus of claim 23, wherein the pattern in which the sealant is disposed between the lid and the substrate is a substantially rectangular pattern with at least one break.

26. (Previously Presented) The apparatus of claim 25, wherein the rectangular pattern has four breaks, one in each side of the substantially rectangular pattern.

27. (Previously Presented) The apparatus of claim 23, wherein the die is attached to the substrate using a controlled collapsed chip connection.